



INTERACTIVE DENDROLOGY

by

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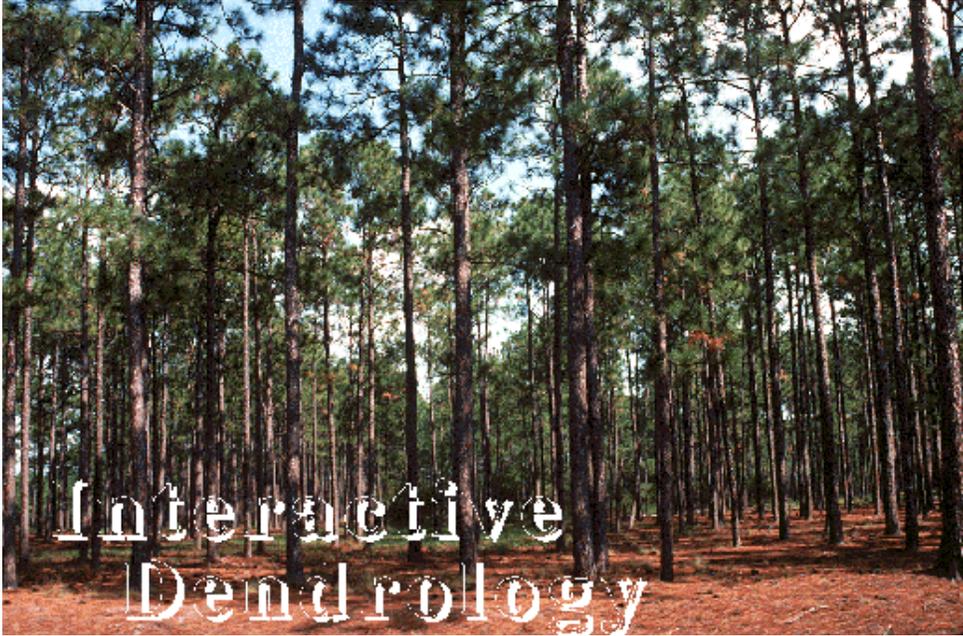
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In order to view Interactive Dendrology correctly, you should have a Netscape compatible browser.

[Click here to begin](#)



Welcome to Interactive Dendrology, an on-line database designed to assist dendrology students. Emphasis is placed on woody species native or naturalized in southeastern North America.

How to use this tutorial:

- Clicking the pointer on blue highlighted text will move you through the tutorial.
- To return to the previous page, click on the "Back" button on the browser or the "Back to Previous Page" option at the bottom of a page. To go to the next page, either click on the desired highlighted text or related image.
- At any time, you may go to the glossary by clicking on the highlighted word "Glossary" at the bottom of the tutorial pages.
- On selected pages you may use the "Interactive Comparison Tool" to make comparisons of species.

To begin the tutorial click [here](#)

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Acknowledgements

Bibliography

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All images in this program have never before been published. They are from photography taken by Karen Hall and Richard Braham, and from illustrations drawn by Alexander Krings and Iris Schoell.

Pinus - The Pines

Pinus is comprised of trees, occasionally shrubs, which are evergreen, highly resinous, and monoecious. This genus is more important in timber-production than any other conifer genus. Lumber, plywood, poles, pilings, pulp, paper, turpentine, rosin (formerly from naval stores), pine "nuts", Christmas trees, and pine straw and bark mulch are all obtained from pine trees.

Pine trees share many characteristics. For a more descriptive comparison, click on the cone:



Worldwide, 90 to 100 species are distributed in temperate regions and mountains of tropical regions in the northern hemisphere, extending from the northern tree-growing limits of the Arctic south to North Africa, the Philippines, and Central America. One species, *Pinus merkusii*, occurring in Sumatra, is the only pine species that crosses the equator into the southern hemisphere.

***Pinus* is divided into 3 subsections in southeastern North America:**

Australes
the Southern
Pines



Contortae
the Fire Pines



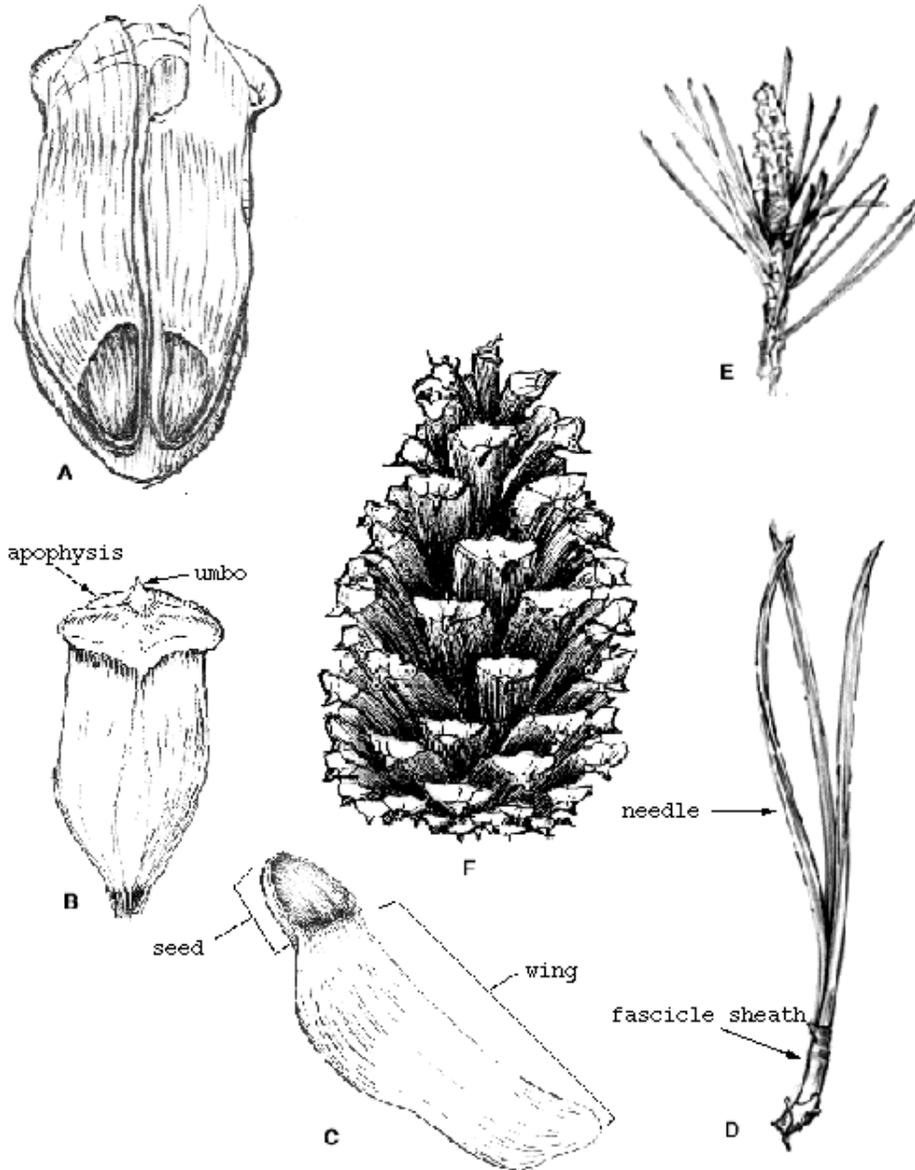
Strobi
the White
Pines



Glossary

Interactive Comparison Tool

Common Pine Tree Features



Pine cone and leaf parts. (A) Inner view of ovulate scale with seed. (B) Outer view of ovulate scale. (C) Winged seed. (D) Needle. (E) Shoot. (F) Mature seed cone.

Pines are unique among the conifers in that they have acicular-shaped leaves, commonly called needles. Needles mostly occur in fascicles of 2 to 8, except *Pinus monophyll*, in which they usually occur singly. The fascicle sheath is comprised of bud scales which can be either deciduous or persistent.

The seed cone usually matures in 2 (rarely 3) years. It is comprised of woody cone scales with subtending bracts spirally arranged around a central axis. The exposed part of a closed cone is called the apophysis. The umbo is the protuberance on the apophysis. On some pines, the apophysis will be armed with a prickle. Seeds usually occur in pairs of 2 at the base of the cone scale and can be winged or wingless.

Glossary	Interactive Comparison Tool	Back to Pinaceae - The Pine Family
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